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## VOLUME 3. AIR OPERATOR TECHNICAL ADMINISTRATION

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### CHAPTER 15. MANUALS, PROCEDURES, AND CHECKLISTS

#### SECTION 3. GENERAL OPERATIONS MANUALS

**2125. GENERAL.** This section contains information, direction, and guidance to be used by principal operations inspectors (POI) in the evaluation of an operator's general operations manual (GOM). The operator's GOM is a segment of the operator's general manual system. Title 14 of the Code of Federal Regulations (14 CFR) part 121, § 121.133 and part 135, § 135.21 require that each operator prepare and keep current "a manual". The manual mentioned is often referred to as a GOM, which the FAA requires to contain guidance for flight, ground, and management personnel during the conduct of the operator's operations.

**2127. CONTENT OF GENERAL OPERATIONS MANUALS.** Part 121, § 121.135 and part 135, § 135.23 specify topics that must be addressed in an operator's GOM. The operator's GOM must contain the duties and responsibilities for each category of employee. This manual must also provide sufficient policy, direction, and guidance to its employees for the safe and efficient performance of their duties. In addition, an operator's GOM must address the policies, systems, and procedures necessary to comply with operations specifications (OpSpecs) provisions and safe operating practices. This section contains discussions of selected topics that POIs should look for when evaluating an operator's GOM, and which may be required by the operator's initial and final compliance statements (see volume 2, chapter 2, paragraphs 73 and 117).

**NOTE:** The requirement to develop a GOM does not apply to a part 135 single pilot operator or a part 135 operator issued an exemption to § 135.21 by OpSpecs paragraph A005 (see volume 2, chapter 3, section 2, paragraph 181).

**2129. OPERATOR MANAGEMENT STRUCTURE.** When evaluating an operator's GOM, POIs must ensure that the operator's management

structure is included in the GOM and that it meets the following guidelines:

*A. Management Structure.* The GOM must contain a description of the operator's management structure as it pertains to flight operation activities. Organizational entities, areas of responsibility, and titles of key management positions must all be identified in the management structure. This description should contain information on how the flight operation management structure interfaces with the airworthiness management structure and the responsibilities of both. Organizational charts and diagrams may also be useful in showing the relationship between operational units within the company.

*B. Names of Management Personnel.* The GOM must list the names of the individuals filling required management positions. An acceptable way for the operator to meet this requirement is to include a copy of its OpSpecs in the manual. The Federal Aviation Administration (FAA) may approve management structures and titles different from those specified by part 135, § 135.37(a) and part 121, § 121.59 by granting a deviation to these regulations. When FAA grants such a deviation it must be listed in OpSpecs paragraph A005 along with the names and titles of the approved management positions listed in OpSpecs paragraph A006.

**2131. AUTHORIZED OPERATIONS.** When evaluating an operator's GOM, POIs must ensure that the operator's authorized operations are included in the operator's GOM, and that they meet the following guidelines:

*A. Clear Descriptions of Authorized Operations.* The GOM must contain clear descriptions of the types and kinds of operations that the operator is authorized to conduct. The GOM must prohibit those operations that a flightcrew could possibly

conduct but which the operator is specifically prohibited from conducting by the OpSpecs. The GOM must contain information on the authorized areas of en route operation in which flights may be conducted, including the types of aircraft authorized, crewmember complements, and any special en route and instrument approach procedure authorizations or requirements. One way an operator may describe the types and kinds of authorized and prohibited operations is to include a copy of the operator's OpSpecs in the GOM. Since the OpSpecs is designed to address a variety of situations and is not easily understandable as it applies to specific operational circumstances, POIs should encourage operators to extract the applicable information and incorporate it in the GOM. Clearly written direction and guidance on how to comply with authorizations and limitations should also be included. It is acceptable for operators to contract a charting and publishing service (such as Jeppesen/Sanderson) to prepare manual material concerning these authorizations and limitations. In these cases, the charting and publishing service's product is considered to be a part of the operator's GOM. POIs must review this portion of the operator's GOM as well as all other portions.

*B. Flight Operations Policies, Methods, and Procedures.* Flight operations policies, methods, and procedures may be located in either the GOM, in a section of the GOM such as a flight operations policy manual, or in a company flight manual (CFM) (see section 1 of this chapter for a definition of CFM). When an operator operates a variety of aircraft, it may be preferable for the flight operations policies, methods, and procedures that are common to all aircraft to be published in the GOM instead of each CFM. Crewmembers are required to comply with the flight operations policies, methods, and procedures, regardless of whether they are published in the GOM or the CFM. Therefore, flight operations policies, methods, and procedures should be written in directive language, and provide specific operational criteria. An example of a flight operations policy statement that does not provide a clear directive or specific operational criteria is as follows: "Use caution when arriving or departing a terminal area when thunderstorms are present." An example of a flight operations policy statement that is clearly a directive and provides specific operational criteria is as follows: "Takeoffs and landings shall not be attempted when thunderstorms are within 3 miles of the airport or the path of takeoff or arrival."

**2133. WEIGHT AND BALANCE PROCEDURES.** When evaluating an operator's GOM, POIs shall ensure that an operator's weight and balance procedures are included in the operator's GOM and that they meet the following guidelines:

*A. Placement of Weight and Balance Procedures.* Each type of airplane used by the operator may require a separate weight and balance procedure. In such cases, it may be appropriate for the operator to place the weight and balance procedure to be used by flightcrews in the CFM and the procedures to be used by other flight operations personnel in sections of the GOM. If the operator develops a single weight and balance procedure for all aircraft operated, it may be appropriate for the operator to place the procedure to be used by flightcrews and other flight operations personnel in the GOM. Operators may develop their own weight and balance procedures or use the procedures furnished by aircraft manufacturers. POIs should recommend the latest editions of the following ACs to the operator:

- AC 43.13-2, Acceptable Methods, Techniques, and Practices—Aircraft Alterations
- FAA-H-8083-1, Aircraft Weight and Balance Handbook
- AC 120-27, Aircraft Weight and Balance Control, as amended

*B. The approval of weight and balance procedures* is granted in OpSpecs A011, A096, A097, A098, A099, and E096. The POI shall have primary responsibility for authorizing the operations that approve actual, average, or segmented passenger and baggage weights outlined in OpSpecs A011, A096, A097, A098, and A099, and the PMI shall issue OpSpec E096, which permits the use of actual or average aircraft fleet weights.

*C. Carry-On Baggage/No-Carry-On Baggage Programs.* Volume 3, chapter 1, section 3 provides the guidance necessary for approving OpSpec A011, authorizing the use of a Carry-On Baggage Program or a No-Carry-On Baggage Program for operations conducted under 14 CFR parts 91 (subpart K), 121, and 135. For guidance regarding part 125 operators, see Order 8700.1, General Aviation Operations Inspector's Handbook.

*D. Volume 3, chapter 1, section 3 provides additional guidance for issuing these OpSpecs.* AC 120-27D provides additional information that will assist the POI in approving an operator's weight and

balance control program. Reference to the OpSpecs may be made in the GOM; however, the reference may not be used instead of a detailed description of the procedures to be used by flight operations, ground handling, and flightcrew personnel. POIs must ensure that the information and guidance in the operator's GOM is consistent with that in the general maintenance manual (GMM). The weight and balance procedures described in the operator's manuals should normally address the following topics:

(1) Procedures for complying with weight and balance limitations for each type of aircraft;

(2) For part 135 operators that operate multiengine aircraft, procedures for ensuring that the empty weight and center of gravity of each multiengine aircraft is determined by actually weighing the aircraft within the preceding 36 months;

(3) Procedures for determining the weight of passengers, crew, cargo, and baggage;

(4) Procedures for making the center of gravity calculations, including loading schedules or other approved methods, if applicable;

(5) Procedures for the completion and disposition of load manifests and weight and balance records; and

(6) Procedures for loading the aircraft.

**2135. OPERATIONAL CONTROL.** When evaluating an operator's GOM, POIs must ensure that an operator's operational control procedures are included. The procedures, duties, and responsibilities of flightcrew, operational control, and management personnel must also be described. Furthermore, the GOM must contain staffing requirements for operational control personnel during periods of time that flights are operational. When training and operational control requirements for operational control personnel are not contained in a training and qualification document, they must be listed in the GOM. The POI must ensure that the following requirements are met:

*A. Part 121 Domestic and Flag Operations.* The description of the operational control system used by part 121 operators conducting domestic and flag operations must be comprehensive. The GOM must contain flight dispatch procedures as well as flight-watch procedures. The interrelation of flight dispatch, crew scheduling, and airworthiness control must be

outlined in detail. The communication facilities to be used for operational control purposes, procedures to be used with Air Traffic Control (ATC), and methods to be used for handling delayed flights, must all be addressed. Procedures to be used during adverse weather conditions and for discontinuing flight in unsafe conditions must also be covered in the GOM. The procedures to be used to operate unscheduled flights under supplemental regulations must be outlined if the operator conducts these kinds of flights (see volume 3, chapter 6, of this handbook for more detailed information on flight dispatch systems).

*B. Part 121 Supplemental Operations.* The description of the operational control system used by part 121 operators that conduct only supplemental operations must contain the flight release and flight-watch procedures to be used by flightcrew, operational control, and management personnel. The interrelation of flightcrews, persons authorized to release flights, and airworthiness control personnel must be outlined. The communication facilities to be used and the procedures for using these facilities must also be covered in the GOM. GOMs must contain procedures to be used during adverse weather conditions and for discontinuing flight in unsafe conditions. Part 121, § 121.125(d) requires that the OpSpecs specify the flight-following system and the location of the flight-following centers. OpSpecs paragraph A008 is allocated to authorize this type of operational control system. If the GOM contains a comprehensive description of the system, only a reference to that GOM section needs to be placed in OpSpecs paragraph A008 (see volume 3 chapter 6 of this handbook for more detailed information on flight-following systems).

*C. Part 135 Operations.* As a minimum, the description of the operational control system used by part 135 operators must contain a list of the names and titles of the personnel who are authorized by the operator to exercise operational control. If the operator does not establish a flight-watch system, the GOM must contain directions to flightcrews for filing an FAA flight plan for each flight conducted. If a flight-watch system is established, the GOM must contain an outline of the procedures that provide the operator with at least the information included in a visual flight rules (VFR) flight plan for each flight operated. The GOM must also contain an outline of the procedures that provide the operator with information on the location, date, and estimated time for reestablishing radio or telephone

contact if flights are conducted in areas where such communications cannot be maintained with the operator. The flight-locating system must also be provided for timely notification to an FAA facility and search and rescue facility when an aircraft is overdue or missing. The GOM shall also contain a description of the procedures for retaining flight location information until a flight has been completed. If a part 135 operator uses a flight control system that is more sophisticated than the basic requirements of the regulation, the GOM shall contain a description of the system and procedures actually used (see volume 3, chapter 6, of this handbook for more detailed information on part 135 Flight Control Systems).

**2137. FLIGHT PLANNING.** When evaluating an operator's GOM, POIs shall ensure that an operator's flight planning procedures are included. The direction and guidance for flight planning must be comprehensive and address the responsibilities of both flight control and flightcrew personnel. The GOM must contain a discussion of weather minimums, special airports, and other special requirements such as drift-down, rerelease, and diversion contingencies. Some operators may elect to place the flight planning procedures in the CFM and the operational control procedures in a dispatch or flight control user manual.

**2139. NOTICES TO AIRMEN (NOTAM) AND PILOT REPORTS (PIREP).** When evaluating an operator's GOM, POIs shall ensure that procedures for the acquisition of NOTAMs and PIREPs and for the distribution of these NOTAMs and PIREPs to applicable personnel are included. The GOM should also contain a description of the procedures for obtaining applicable NOTAMs that are only distributed to a local area.

**2141. RESTRICTED OR SUSPENDED OPERATIONS.** The regulations require operators knowing of conditions that preclude safe operations (including hazardous airport and runway conditions) to restrict or suspend operations until those conditions change. POIs must evaluate an operator's GOM to ensure that it contains a description of the procedures for employees to follow should they become aware of such conditions.

**2143. INTERNATIONAL OPERATIONS.** For an operator that conducts international operations, POIs must evaluate the operator's GOM to ensure that it includes pertinent and necessary flight control information. In the GOM, particular

emphasis should be placed on fuel and performance requirements, communications, weather reports and forecasts, flight planning, and any specialized means of navigation. POIs should refer operators to the latest editions of the following ACs concerning international operations:

- AC 90-76, Flight Operations in Oceanic Airspace
- AC 90-79, Recommended Practices and Procedures for the Use of Electronic Long-Range Navigation Equipment
- AC 91-49, General Aviation Procedures for Flight in North Atlantic Minimum Navigation Performance Specifications Airspace
- AC 120-31, Operational and Airworthiness Approval of Airborne Omega Radio Navigation Systems as a Means of Updating Self-Contained Navigation Systems
- AC 120-33, Operational Approval of Airborne Long-Range Navigation Systems for Flight Within the North Atlantic Minimum Navigation Performance Specifications Airspace
- AC 120-37, Operational and Airworthiness Approval of Airborne Omega Radio Navigation Systems as a Sole Means of Long-Range Navigation Outside the United States
- AC 121-13, Self-Contained Navigation Systems (Long Range)

**2145. OBSERVER'S SEATS.** POIs should ensure that the operator's GOM includes the requirement that the operator must provide an observer's seat (jumpseat or passenger seat) to FAA inspectors and other specified personnel. Usually, operators assign the authority to control the use of these observer's seats to a flight control department. Gate agents and passenger handling personnel must also be aware of these requirements. Crewmembers must also be aware of the procedures to be used for observer seat assignments. Information to comply with part 121, §§ 121.547, 121.548, and 121.581, and part 135, § 135.75 must be included in the GOM, such as the following:

*A.* Priorities of FAA inspectors, National Transportation Safety Board (NTSB) personnel, Secret Service agents, crewmembers, manufacturer's technical representatives, and other personnel. (The FAA has second priority after Secret Service when they are protecting someone on the flight.);

*B.* Methods for ensuring that no more than one

person is assigned to a jumpseat at any particular time; and

C. Procedures for disseminating jumpseat assignments to other stations.

**2147. LINE STATION OPERATIONS.** Line station operations are those activities performed by the operator's personnel (or by other personnel for the operator) to originate, turn around, or terminate flights conducted by the operator. For an operator that conducts line station operations, POIs must evaluate the operator's GOM to ensure that it includes the necessary information on the various topics that follow:

A. Line station operations should include the use of the following types of facilities and equipment:

(1) Ramp areas, including markings, signs, signaling devices, lighting, and blast fences;

(2) Ramp facilities and equipment, such as passenger and cargo boarding and deplaning equipment (towing, refueling, catering, and ground power equipment);

(3) Crewmember meeting areas, facilities for crewmember flight planning (preparation for flight), and post-flight activities; and

(4) Ground station personnel work areas and facilities, communications equipment, and administrative support.

B. Inspectors must ensure that an operator's GOM contains the policies, procedures, and guidance to be used by the personnel who support the operator's flight operations at line stations. This manual material must include those situations in which the operator maintains line stations as well as situations in which the operator contracts for or purchases line station support. This type of material is usually located throughout various user manuals, such as ground station operations and maintenance manuals, passenger service manuals, facilities and equipment manuals, fueling manuals, and other special types of manuals. An operator may format and organize this type of manual material in a manner that is most consistent and usable for the operator's kind and type of operation. Regardless of the format and organization, however, this type of manual information is considered to be GOM material. The following are examples of the types of information that should be addressed in

manual material concerning line stations operations:

(1) *Duties and Responsibilities.* The GOM or GMM, as appropriate, must contain an outline of the duties and responsibilities of line station supervisory personnel. The types of positions that should be addressed include the following: ground station operations personnel, passenger handling agents, cargo and baggage handling personnel, and aircraft servicing personnel (when not addressed in the GMM). When an operator contracts for, or purchases line station support, the GOM or GMM, as appropriate, must detail the procedures to be used by the personnel providing the support.

(2) *Passenger Handling and Protection.* The GOM must contain procedures and guidance for ensuring the safety of passengers during line station operations. The following are examples of passenger handling and protection subjects that must be addressed in the GOM:

(a) Procedures for passenger boarding and deplaning;

(b) Procedures for use of jetways, passenger boarding stairs, air stairs, and other types of passenger boarding equipment;

(c) Procedures to ensure the safety of passengers on the ramp, including restricting of ground equipment and vehicle operation on ramps; and directing passengers to and from aircraft, around equipment, and to painted pathway lines on the ramp;

(d) Procedures and guidance for protecting passengers from jet intake and blast, rotating and static propellers and rotors, ice on the ramp and boarding equipment, and tripping hazards;

(e) Procedures for prohibiting smoking in no-smoking areas;

(f) Procedures for assisting and ensuring safety of handicapped persons;

(g) Procedures for handling intoxicated, hostile, or unruly persons;

(h) Procedures for handling and controlling carry-on baggage;

(i) Procedures for exit seating; and

(j) Procedures for identifying and handling hazardous materials.

*(3) Aircraft Servicing and Ramp Operations.*

The GOM and GMM must contain detailed safety procedures and guidance on servicing and maintaining aircraft during line station operations. These manuals should also contain instructions on the maintenance and use of ramp areas. The following are examples of procedures for aircraft servicing and ramp operations that should be addressed in the GOM:

(a) Procedures for the safety and protection of personnel working on the ramp;

(b) Procedures and/or guidance for the maintenance and catering of aircraft, with or without passengers on-board;

(c) Procedures for fueling aircraft with or without passengers on-board, including any requirements for crewmembers to be on-board during fueling, or prohibitions against positioning fuel trucks next to open exits with passengers on-board;

(d) Procedures for operating ground equipment, including the capabilities and limitations of the equipment, and the training and qualification of persons using the equipment;

(e) Procedures and guidance for properly locating and stowing ground equipment;

(f) Procedures for the operation of aircraft cargo doors, baggage and cargo loading, closing and checking the security of doors;

(g) Procedures for foreign object damage (FOD) control and periodically inspecting ramp areas;

(h) Procedures to be used during adverse weather conditions such as thunderstorms, high winds, or low visibility; and

(i) Procedures for the inspection and removal of frost, ice, snow, or standing water.

*(4) Hot and Cold Weather Operations.* POIs should evaluate an operator's GOM to ensure that it (as well as the GMM) contains detailed procedures and guidance on hot and cold weather operations, including the following:

(a) Procedures for the inspection of ramps for accumulation of frost, ice, snow, or standing water;

(b) Precautions for the operation of vehicles and equipment;

(c) Restrictions and cautions on aircraft movements; and

(d) Restrictions and cautions for the protection of passengers and ramp personnel.

*(5) Deicing Procedures.* Aircraft ground deicing procedures should be clearly delineated by the operator. While such procedures are usually in the GMM, the operator's GOM must contain the following types of information concerning deicing for crewmembers, ground operations, and management personnel:

(a) Assignment of responsibility for ensuring that aircraft is clear of frost, ice, and snow accumulation;

(b) Conditions that require aircraft ground deicing;

(c) Procedures to ensure the effectiveness of deicing, including the frequency of applications, proper fluid mixtures, and tactile or close visual checks of selected portions of critical surfaces;

(d) Parts of the aircraft to deice, including a description of the critical surfaces of the aircraft used by the operator;

(e) Locations on the ramps or airports where deicing will be conducted;

(f) Engine auxiliary power unit (APU) and ground equipment operation during deicing;

(g) Passenger and ramp personnel protection during deicing;

(h) Procedures to be used by contract personnel, when the operator contracts for deicing services;

(i) If applicable, a complete description of the elements of the operator's ground deicing/anti-icing program and the procedures required to operate under that program; and

(j) If applicable, a complete description of the ground deicing/anti-icing operational procedures that the operator uses to comply with part 121, § 121.629 and part 135, § 135.227.

*(6) Aircraft Movement in the Ramp Area.* POIs must ensure that the operator's procedures and guidance for the movement of aircraft in the ramp area are carefully coordinated between the operator's GOM and GMM (or appropriate user manuals). The definitions of signaling devices, signs, and ramp markings (such as taxi lines, stop lines, boundary and clearance lines) must be the

same, and mutually understood by both crewmembers and ground handling personnel. Specific procedures for engine start, pre-taxi pushback, powerback (if approved), taxi-out, taxi-in, and parking while in the ramp area must be provided in the GOM (or in an applicable user manual). Communication procedures for ground handling personnel and crewmembers must be thoroughly coordinated. POIs must ensure that the interphone terminology and hand signals used by ground handling personnel and crewmembers have the same meaning. The need for common terminology and hand signals is also important for crewmembers and passenger handling agents. Illustrations of standard hand signals and their meanings should be provided in the GOM and GMM (or appropriate user manuals). The training and qualification requirements of personnel authorized to move aircraft on the ramp or on the airport must be described in the appropriate manuals. For example, when an operator is approved to powerback, the GOM must contain specific procedures for those operations for each authorized airport and gate. Powerback communications and hand signals must be thoroughly coordinated between crewmembers and ground handling personnel.

(7) *Line Station Emergency Procedures.* POIs must ensure that the operator's GOM and GMM contain procedures to be used by crewmembers or ground personnel in case of emergency situations during line station operations. Line station emergency procedures must contain the specific duties and actions of appropriate personnel. This type of manual material must also include notification procedures and requirements. The notification procedures and requirements should contain specifications as to who will be notified, who will make the notification, how the notification should be made, and when it will be made for the various types of emergency situations that could occur at line stations. Usually this type of manual material should also include a quick reference telephone listing for obtaining fire fighting and medical assistance, and for notifying appropriate company management, law enforcement officials, and FAA and NTSB officials. Line station emergency procedures should be published in a distinct section of the GOM or GMM so that they are easily accessible. For large, complex operators, line station emergency procedures are usually published as a manual under separate cover to ensure rapid accessibility. Operators should publish a line station emergency procedures manual for each station because of the uniqueness of each line station. POIs should encourage this as a

preferred practice. The types of situations that should be covered in line station emergency procedures include the following:

(a) Aircraft accidents and incidents (POIs should encourage operators to develop guidance for ground personnel providing passenger lists to aid in handling passengers and accounting for all passengers immediately after a survivable type accident. Handling passengers includes actions such as providing suitable transportation for injured passengers to locations where medical assistance can be obtained.);

(b) Bomb threats, hijack procedures, and other types of security incidents;

(c) Fuel spills and hazardous materials mishaps;

(d) Procedures for post-flight handling of passenger injury, illness, or incidents involving passenger altercations and interference with crewmembers;

(e) Employee/passenger accidents and injuries;

(f) Adverse weather conditions, such as tornadoes and hurricanes or other adverse conditions such as earthquakes (if such conditions are likely to occur at the operator's line stations);

(g) Emergency evacuation of aircraft while parked (This should include procedures for both the flightcrew and flight attendants (F/A) to activate the aircraft emergency lighting systems during an emergency evacuation, regardless of the perceived ease with which an evacuation can be accomplished; and passenger egress procedures for crewmembers and other operations personnel. These procedures should include the requirement that whenever passengers are on-board the aircraft before airplane movement on the surface, that at least one floor-level exit must be usable for the egress of passengers through normal or emergency means.);

(h) Aircraft rescue and fire fighting (ARFF) emergency notification procedures while parked (POIs shall encourage their assigned operators to develop explicit ARFF emergency notification procedures for crewmembers and other operations personnel to employ in the event of an emergency occurrence on their aircraft while they are parked.); and

**NOTE: ARFF notification procedures apply to situations where ARFF equipment is located both on and off airports. These procedures**

should include information concerning:

- **Whom to notify (such as airport fire department, airport control tower, alternate facility if control tower is closed)**
- **The means of notification to be used (such as jetway telephone, including ARFF telephone numbers; and aircraft radio communication system, including ARFF radio frequencies)**
- **The persons by job title whom the operator determines shall implement notification procedures in the event of an emergency occurrence on the operator's aircraft.**

(i) For passenger-carrying operations, if the operator's ARFF procedures require its crewmembers to implement these procedures, then the following guidance should be included: In the event of an aircraft fire or other emergency scenario involving aircraft evacuation, the first actions of crewmembers and/or other personnel qualified in accordance with part 121, § 121.391(a) should be to initiate the evacuation of the aircraft occupants. Once the crew has determined that all aircraft occupants have been evacuated, then the crewmember(s) designated by the operator should initiate the ARFF emergency notification procedures.

(8) *Contract Services.* POIs must ensure that the GOM and GMM, as appropriate, contain policy and guidance concerning the interrelationship between the operator's personnel and the personnel of organizations who provide contract services at line stations. Contractor personnel are required to be trained on operator-specific procedures. The appropriate manual must contain the specifications for the following: the types of training to be given to contractor personnel, who is responsible for providing the training, and who is responsible for keeping records of the training. Although the contractor may be delegated this responsibility, the operator has final responsibility.

(9) *Trip Records.* POIs must ensure that the operator's GOM contains policies, procedures, and guidance concerning the preparation and disposition of trip records at line stations. Trip records include documents such as dispatch and flight releases, flight plans, weather, NOTAMs, oceanic plotting charts, load manifests, and weight and balance documents. The manual material must specify who is responsible for preparing the trip records, the coordination activities that must be accomplished during the trip record preparation process, and the intermediate and final

disposition of the trip records. The POI must ensure that the policies, procedures, and guidance in this manual material consistently contain accurate information for crewmembers and flight operational control personnel.

#### *(10) Local Conditions at Line Stations.*

Personnel at line stations have immediate access to and knowledge of various conditions and activities that could affect flight operations at those line stations. Examples of local conditions and activities include the following: weather conditions, runway and taxiway conditions, airport construction activities, and new obstacles observed in the airport takeoff flight paths. As such, inspectors must ensure that an operator's GOM contains instructions and procedures so that line station personnel can provide the operator with local condition reports. This manual material must contain clear instructions about the circumstances in which line station personnel are authorized to suspend or delay flight operations.

#### **2149. PASSENGER BRIEFING PROCEDURES.**

POIs must ensure that the operator's GOM or flight manual, as appropriate, specifies the procedures to be used for pre-takeoff, en route, and post-landing briefings of passengers. Operators who use F/As may publish F/A user manuals as sections in their GOMs. The GOM or F/A user manual must contain the briefings to be given. Passenger briefing cards must be used to supplement the oral briefings. These passenger briefing cards must depict all of the required items that are addressed during the oral briefings. AC 121-24A and AC 135-12A, Passenger Safety Information Briefing and Briefing Cards, contains guidance on passenger safety information and briefing cards.

**2150. RAPID REFUELING OF HELICOPTERS.** Inspectors should consider the following requirements when evaluating an operator's procedures for the rapid refueling of helicopters with and without passengers on board.

*A. Refueling Procedures.* Operators may need to conduct operations such as the refueling of a helicopter with the engine running, rotors turning, or with passengers on board. Before conducting such operations, the operator must develop procedures acceptable to the POI and publish these in the operator's general operations manual (GOM). The operator must train and qualify all applicable personnel in these procedures before conducting such operations.



(1) Only turbine engine helicopters using fuels that have a flash point equal to or greater than JET A or JET A-1 fuels should be fueled while an engine is operating.

(2) Helicopters being refueled while an engine is operating should have all sources of ignition of potential fuel spills located above the fuel inlet port(s) and above the vents or tank openings. Sources of ignition include, but are not limited to, engines, exhausts, auxiliary power units (APUs), and combustion-type cabin heater exhausts.

(3) Helicopter fueling while engines are operating should be permitted only under the following conditions:

(a) An FAA-certificated helicopter pilot should be at the aircraft controls during the entire fuel servicing process.

(b) Passengers should be off-loaded to a safe location prior to rapid refueling operations. Where the pilot in command deems it necessary for passengers to remain on board for safety reasons, the provisions of paragraph 2154 B, Evacuation Procedures, should apply.

(c) Passengers should not load or off-load during rapid refueling.

(d) Only designated personnel, properly trained in rapid refueling operations, should operate the equipment. Written procedures should include the safe handling of the fuel and equipment.

(e) All doors, windows, and access points allowing entry to the interior of the helicopter that are adjacent to, or in the immediate vicinity of, the fuel inlet ports should be closed and should remain closed during refueling operations.

(f) Before placing fuel into the helicopter, the helicopter should be bonded to the fuel source to equalize static electricity between the fuel source and the aircraft.

**NOTE: Grounding of the aircraft and/or fuel truck is no longer recommended because it does not prevent sparks at the fuel source, and the grounding cable may not be sufficient to discharge the electrical current.**

(g) Fuel should be dispensed into an open port from approved deadman-type nozzles, with a flow rate not to exceed 10 gallons-per-minute (38 liters-per-minute), or it should be dispensed through close port pressure fueling ports.

(h) An appropriate type fire extinguisher of an appropriate size for the refueling operation must be within easy reach of the refueling personnel at all times during rapid refueling operations.

*B. Evacuations Procedures.* An operator's refueling policies and procedures should include any special considerations for the evacuation of passengers in case of emergencies. Inspectors should consider the following requirements when evaluating an operator's procedures for evacuation of passengers during helicopter rapid refueling.

(1) If passengers remain on board the aircraft during fuel servicing, at least one qualified person trained in emergency evacuation procedures should be in the aircraft at or near a door at which there is a passenger loading walkway, integral stairs that lead downward, or a passenger loading stair or stand.

(2) A clear area for emergency evacuation of the aircraft should be maintained adjacent to not less than one additional exit.

(3) If fueling operations take place with passengers on board away from the terminal building and stairways are not provided, such as during inclement weather (diversions), the operator should notify the Airport Rescue and Fire Fighting (ARFF) services to assume a stand-by position in the vicinity of the fueling activity with at least one vehicle.

(4) The aircraft operator should establish specific procedures covering emergency evacuation under such conditions for each type of aircraft they operate.

(5) All "no smoking" signs should be displayed in the cabin(s), and the no smoking rule should be enforced. For aircraft without closed refueling systems, the operator should use "no smoking" placards or temporary signs as opposed to lighted "no smoking" signs.

**2151.-2160. RESERVED.**

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